THE DETECTION OF DWI MOTORCYCLISTS

In 1990, there were about 100,000 reported motorcycle crashes in the United States, resulting in more than 3,200 fatalities. One out of every 40 registered motorcycles was involved in a crash and one out of every 1,300 motorcycles was involved in a fatal crash. The National Highway Traffic Safety Administration (NHTSA) estimates that in 1990 52% of motorcycle driver fatalities involved alcohol. The objective of this research effort was to identify and develop a set of behavioral cues associated with alcohol-impaired motorcycle riding, as was done for motorists previously. Law enforcement officers on patrol can use these cues as a basis for stopping and investigating driving while intoxicated (DWI) motorcyclists.

A set of 14 behavioral cues associated with impaired motorcycle riding was identified from interviews with expert law enforcement officers, archival research of almost 1,000 motorcycle DWI arrest reports, observed behavior collected during actual ride alongs with police, and two larger field studies. A detection guide and training videotape are available for police use in rollcall settings. The set of visual cues and training materials were validated in a field setting by police in 50 law enforcement sites in 19 different agencies and eleven states. The results from the validation study were used to make final revisions in the training materials.

Fourteen rider behaviors or cues found to best distinguish between impaired and unimpaired motorcycle operation are grouped into two categories. Excellent predictors are those cues with a probability of DWI 50% or more. Examples of excellent predictor cues are: drifting during a turn or curve; trouble with dismounting; trouble with balance at a stop; turning problems; inattentive to surroundings; inappropriate or unusual behavior; and weaving. Good predictors are those cues with probabilities of DWI between 30-49%. Examples of

good predictor cues are: erratic movements while going straight; operating without lights at night; recklessness; following too closely; running a stop light or sign; evasion; and going the wrong way.

MOTORCYCLE DWI DETECTION GUIDE

NHTSA has found that the following cues predicted impaired motorcycle operation.

Excellent Cues (50% or greater probability)

- Drifting during turn or curve
- Trouble with dismount
- Trouble with balance at a stop
- Turning problems (e.g., unsteady, sudden corrections, late braking, improper lean angle)
- Inattentive to surroundings
- Inappropriate or unusual behavior (e.g., carrying or dropping object, urinating at roadside, disorderly conduct, etc.)
- Weaving

Good Cues (30 to 50% probability)

- Erratic movements while going straight
- Operating without lights at night
- Recklessness
- Following too closely
- Running stop light or sign
- Evasion
- Wrong way

A more detailed technical report prepared by Anacapa Sciences of Santa Barbara, California, titled, *The Detection of DWI Motorcyclists*, is now available (NHTSA Technical Report Number DOT HS 807 839). There is also a brief *DWI Detection Guide* and a 12-minute videotape suitable for police roll call training.

For additional information about this project, contact: National Highway Traffic Safety Administration, Office of Program Development and Evaluation, NTS-32, Room 6240 400 Seventh Street, S.W., Washington, DC 20590

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